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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/311,617	05/13/1999	BRENT TOWNSHEND	99.294	1470
20306	7590	10/04/2003		
MCDONNELL BOEHNEN HULBERT & BERGHOFF 300 SOUTH WACKER DRIVE SUITE 3200 CHICAGO, IL 60606				
			EXAMINER ARMSTRONG, ANGELA A	
			ART UNIT 2654	PAPER NUMBER 22

DATE MAILED: 10/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/311,617

Applicant(s)

TOWNSHEND, BRENT

Examiner

Angela A. Armstrong

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 26, 2003 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturner et al. (US Patent No. 5,303,327) in view of Junqua (US Patent No. 6,253,181).

3. As per claims 1, 7, 8, 11-17, Sturner et al. disclose a test system/method comprising;

A first set of task that require a subject to provide one or more spoken responses, (see abstract, lines 2-3);

A speech recognition system to receive the spoken response and provide an estimate, (see col. 3, line 64 to col. 4, line 12, col. 6, line 64);

A scoring device to convert the estimate into a score, (see col. 5, lines 4-21),

A computation device for providing a subject score based on a combination of item

Art Unit: 2654

scores using a scoring computation model that depends upon an expected item-dependent operating characteristic of the speech recognition system-4 (see abstract, lines 6-13).

Subject scores being based reflecting at least one of linguistic ability and cognitive ability, (see col. 2, line 25 continuing to col. 3, line 3),

Scoring computation reflecting normalized data (see col. 5, line 62 continuing to col. 6, line 15),

Sturmer fail to explicitly teach that the subject score accounts for inaccuracies, potential recognition errors, or item-dependent operational characteristics of the speech recognition system.

Junqua discloses a speech recognition and teaching apparatus able to rapidly adapt to difficult speech of children and foreign speakers. At col. 3, line 60 continuing to col. 5, line 67, Junqua teaches the speech recognition system uses a confidence measurement system that provides a quantitative measure of how reliable each utterance is. Junqua describes a likelihood ratio score that compares the likelihood score associated with correct recognition with the mean or average of likelihood scores associated with incorrect recognition. Junqua teaches the system provides an increase in the recognizer's chance of having a good performance, without adapting to incorrect recognitions (col.1, lines 18-19).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Sturmer to implement a confidence measurement system that provides a quantitative measure of system reliability, as taught by Junqua, for the purpose of increasing the recognizers performance, as also suggested by Junqua.

As per claim 2, Sturmer et al. disclose a system wherein the scoring computation is based

Art Unit: 2654

on Item Response Theory, (see col. 5, lines 36-46).

As per claim 3, Sturner et al. disclose a system wherein the speech recognition system, the scoring device and the computation device comprise software modules running on a general purpose computer, (see Fig. 1).

As per claim 4, Sturner et al. disclose a system wherein the scoring computation model is constructed from a plurality of responses provided by a number of native and non-native speakers, the plurality of responses being prompted by a second set of tasks items, (see col. 5, lines 36-39).

As per claim 5, Sturner et al. disclose a system wherein the estimate provided by the speech recognition comprises an estimate of the linguistic content of the spoken response, (see col. 5, lines 48-66).

As per claim 6, Sturner et al. disclose a system wherein at least one task is an item selected from a group consisting of a prompt to read a sentence aloud ..., (see col. 6, lines 16 37).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Keeler et al (US Patent No. 5,613,041) discloses a method for estimating the accuracy of a trained neural network model, for determining the validity of the neural network's prediction.

Art Unit: 2654

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Angela A. Armstrong
Examiner
Art Unit 2654

AAA
September 30, 2003


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER